Application No.: 10/722,987

Office Action Dated: September 4, 2008

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application. Listing of Claims:

1. (Currently amended) A method for searching using a limited input keypad to search for data contained in an electronic device, the limited input keypad comprising a plurality of keys, each of which is an alphanumeric key that is identifiable by a unique number and a corresponding subset of an alphabet, the method comprising:

storing a plurality of first character text strings and a corresponding second character plurality of numeric strings, wherein each of the plurality of numeric strings is formed by matching each individual letter contained in a text string with a corresponding number located on the same alphanumeric key;

receiving a <u>first portion of a query via activation of a first alphanumeric key by a user of</u> the limited input keypad; and

searching the stored character <u>plurality of numeric</u> strings <u>for identifying a first numeric</u> <u>string having in a first position, a first number that corresponds to the unique number on the activated first alphanumeric key;</u>

responsive to the query by receiving a character second portion of the query via activation of a second alphanumeric key by the user of the limited input keypad; [[,]] appending said character to previously received characters if any,

performing a prefix further search on the plurality of numeric strings for identifying a second numeric string having in the first position, the first number that corresponds to the unique number on the activated first alphanumeric key, and in an adjacent position, a second number that corresponds to the unique number on the activated second alphanumeric key; and

using the identified second numeric string to identify the corresponding text string associated with the identified second numeric string, and use the identified corresponding text string to provide to the user, data contained in the electronic device.

of received characters on the stored second character strings, and returning a set of first character strings stored with the second character strings that match the prefix search, wherein receiving the character comprises receiving input from an input device, and determining the

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character from a set of characters that corresponds to the received input, further wherein the input device comprises a keypad having at least one alphanumeric key associated with a unique number and a unique subset of an alphabet.

2-5. (Cancelled)

- 6. (Currently amended) The method of claim [[4]] 1, further comprising storing the mapping plurality of text strings and the corresponding plurality of numeric strings as a table.
- 7. (Currently amended) The method of claim 6, wherein the storing as a table comprises: storing each of the characters in the second set of characters plurality of text strings in a respective row rows in a first column of the table; and

storing an associated subset of characters of the first set of characters each of the corresponding plurality of numeric strings in a corresponding respective row rows in a second column of the table.

8-24. (Cancelled)

25. (Currently amended) A data searching system, comprising:

an input device for receiving a query through a limited input keypad comprising a plurality of keys, each of which is an alphanumeric key identifiable by a unique number and a corresponding subset of an alphabet;

a storage device for storing a plurality of first character text strings and a corresponding second character plurality of numeric strings; wherein each of the second character plurality of numeric strings is a number associated with a corresponding alphanumeric key on the keypad of the input device, and each of the first character strings corresponds to a unique subset of an alphabet associated with the corresponding formed by matching each individual letter contained in a text string with a corresponding number located on the same alphanumeric key;

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a display device for displaying a set of character strings search result comprising data associated with at least one of the plurality of text strings; and

a processor for searching the stored character strings responsive to the <u>a</u> query that is <u>initiated</u> by activation of a first alphanumeric key, by receiving a character, appending said character to previously received characters if any, performing a prefix search of received characters on the stored second character plurality of numeric strings, and providing to the display, the search result, a set of character strings after detecting a first numeric string that contains the unique number of the activated first alphanumeric key in a first position of the first numeric string, and identifying therefrom, a corresponding text string corresponding to the first numeric string, stored with the second character strings that match the prefix search.

26-29. (Canceled)

- 30. (Currently amended) The system of claim 28 25, wherein the storage device comprises a table for storing the a mapping between the plurality of text strings and the corresponding plurality of numeric strings.
- 31. (Currently amended) The system of claim 30, wherein the table comprises:

 a respective row rows in a first column of the table for storing each of the characters in the second set of characters plurality of text strings; and

a respective row corresponding rows in a second column of the table for storing an associated subset of characters of the first set of characters each of the plurality of numeric strings.

32-36. (Cancelled)

37. (Withdrawn – Currently amended) A method of to search for data contained in an electronic device by recognizing a string of letters wherein each letter contained in the string of letters is inputtable into the electronic device via alphabets entered into a limited input

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keypad, the limited input keypad comprising at least one alphanumeric key that combinedly represents a <u>unique</u> number and a plurality of alphabets <u>corresponding subset of an alphabet</u>, the method comprising:

populating a lookup table by mapping the string of alphabets letters to a string of numbers, the mapping comprising:

identifying depression of a first alphanumeric key on the keypad, wherein the first alphanumeric key is selected to correspond to a first alphabet letter in the string of alphabets letters;

storing a first number that is the same as the unique number associated with the first alphanumeric key;

identifying depression of a second alphanumeric key on the keypad, wherein the second alphanumeric key is selected to correspond to a second alphabet letter in the string of alphabets letters; and

storing a second number that is the same as the unique number associated with the second alphanumeric key, wherein the second number is stored along with the first number, and wherein the combination of the first and second numbers comprises the string of numbers that enables a subsequent number search for recognizing a subsequent entry of the string of letters via the limited input keypad, and locating thereon, data associated with the recognized string of letters. that corresponds to the string of alphabets.

38. (Withdrawn – Currently amended) The method of claim 37, further comprising: completing the mapping by storing each of the numbers corresponding to each of the alphabets letters in the string of alphabets letters; and

using the lookup table for recognizing a subsequent entry of the string of alphabets <u>letters</u> into the limited input keypad, the recognizing comprising:

identifying subsequent depression of the first alphanumeric key on the keypad; searching the lookup table to locate the first number associated with the first alphanumeric key;

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identifying subsequent depression of the second alphanumeric key on the keypad; searching the lookup table to locate the second number associated with the second alphanumeric key; and

recognizing from the combination of first and second numbers, the combination of the first and second alphabets letters that comprise the string of alphabets letters.

- 39. (Withdrawn Currently amended) The method of claim 38, further comprising: displaying the combination of the first and second alphabets letters to indicate the presence of a potential match in the lookup table.
- 40. (Withdrawn Currently amended) The method of claim 39, further comprising: displaying all alphabets letters in the string of alphabets letters upon recognizing an exact match in the string of numbers contained in the lookup table.
- 41. (Withdrawn Currently amended) The method of claim 38, further comprising: populating the lookup table by mapping a plurality of additional alphabet letter strings to a corresponding plurality of additional number strings.
- 42. (Withdrawn Currently amended) The method of claim 41, further comprising: displaying at least one alphabet letter from one of the additional alphabet letter strings as a potential match during the subsequent entry of the string of alphabet letter into the limited input keypad.
- 43. (Withdrawn) The method of claim 41, further comprising: displaying duplicate matches that exist in the lookup table.
- 44. (New) The method of claim 1, wherein the identified second numeric string is the same as the first numeric string.

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45. (New) The method of claim 44, wherein the identified second numeric string is a name of

a contact stored in the electronic device.

46. (New) The method of claim 45, wherein the data associated with the name of the contact

comprises at least one of a) a phone number, and b) an address.

47. (New) The method of claim 6, wherein the plurality of text strings corresponds to names

of a contact list stored in the electronic device, and the data associated with each of the

names is stored together with the names in the table.

48. (New) The system of claim 25, wherein the processor is further responsive to activation

of a second alphanumeric key, by performing a further search on the stored plurality of

numeric strings for detecting a second numeric string that contains the unique number of

the activated second alphanumeric key in a second position adjacent to the first position

in the second numeric string.

49. (New) The system of claim 48, wherein the detected second numeric string is the same as

the detected first numeric string.

50. (New) The system of claim 48, wherein the identified second numeric string is a name of

a contact stored in the electronic device.

51. (New) The system of claim 50, wherein the data associated with the name of the contact

comprises at least one of a) a phone number, and b) an address.

52. (New) The system of claim 51, wherein the plurality of text strings corresponds to names

of a contact list stored in the electronic device, and the data associated with each of the

names is stored together with the names in the table.

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